PART 1: GENERAL

SUMMARY

1. GABION WALL CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.

2. THE DETAILS PRESENTED ON SHEETS G1.1 THROUGH G1.3 ARE GENERALIZED. WALL LOCATIONS, LAYOUTS, AND EXISTING AND FINISHED GRADES ARE PRESENTED ON SHEETS L1.0 THROUGH L2.36.

3. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING DIMENSIONS AND SITE CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS OF ALL EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ABANDONED UTILITIES, THE RELOCATION OF LIVE UTILITIES THAT INTERFERE WITH THE PLANNED CONSTRUCTION, AND THE PROTECTION OF EXISTING UTILITIES TO REMAIN IN PLACE.

4. THE CONTRACTOR IS RESPONSIBLE FOR THE CONSTRUCTION PROCESS AND THE SAFETY OF WORKERS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE CONSTRUCTION SEQUENCE, TEMPORARY HAND RAILS, EXCAVATION ACCESS, TEMPORARY BARRIERS, TEMPORARY SHORING, AND THE STABILITY OF TEMPORARY CUT SLOPES.

PART 2: MATERIALS

1. SEE PROJECT SPECIFICATIONS.

PART 3: DESIGN CRITERIA

DESIGN PARAMETERS:

1. DESIGN OF GABION GRAVITY RETAINING WALLS SHOWN ON THESE PLANS IS BASED ON THE FOLLOWING PARAMETERS:

SURCHARGE LOADING:

1. TRAFFIC SURCHARGE OF 100 PSF WAS UTILIZED FOR WALLS LOCATED ON RIGHT SIDE OF TRAIL (LOOKING UP STATION).

SEISMIC ANALYSIS:

1. GABION WALLS HAVE BEEN DESIGNED ASSUMING A DESIGN SEISMIC ACCELERATION EQUAL TO ½ OF THE PEAK GROUND ACCELERATION (PGA) FOR AN EVENT WITH A 10% PROBABILITY OF EXCEEDENCE IN 50 YEARS AS DETERMINED FROM USGS MAPPING. A PGA OF 0.3g WAS UTILIZED.

SOIL PROPERTIES	RETAINED SOIL–COLLUVIUM	RETAINED SOIL– GLACIAL TILL	FOUNDATION SOIL
UNIT WEIGHT (PCF)	125	135	125
FRICTION ANGLE (DEG)	30	42	30
COHESION (PSF)	0	0	0

PART 3: DESIGN CRITERIA (CONTINUED)

FACTORS OF SAFETY:

1. GABION WALLS SHOWN ON THESE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO ASD METHOD TO MEET THE FOLLOWING MINIMUM FACTORS OF SAFETY:

LOADING CONDITION:	STATIC	SEISMIC
SLIDING	1.5	1.1
OVERTURNING:	1.5	1.1
BEARING CAPACITY	3.0	1.5
GLOBAL EXTERNAL*	1.5	1.1

* THE GABION WALLS ALONG PORTIONS OF THE LEFT SIDE OF THE TRAIL (LOOKING UP STATION) ARE LOCATED AT THE TOE OF STEEP, MARGINALLY STABLE SLOPES. PROVIDED THAT THESE EXISTING MARGINALLY STABLE SLOPES ARE NOT SIGNIFICANTLY DISTURBED DURING CONSTRUCTION, INSTALLATION OF THE GABION WALLS SHOULD NOT DECREASE THE STABILITY OF THE EXISTING SLOPES. AT THE SAME TIME, THE GABION WALLS HAVE NOT BEEN DESIGNED TO IMPROVE THE STABILITY OF THE ADJACENT MARGINALLY STABLE SLOPES. THE CONTRACTOR SHALL MONITOR THE PERFORMANCE OF THE ADJACENT SLOPES, AND TAKE APPROPRIATE MEASURES TO PROTECT THESE SLOPES.

PART 4: GABION CONSTRUCTION

1. SEE PROJECT SPECIFICATIONS.

PART 5: QUALITY CONTROL

1. SEE PROJECT SPECIFICATIONS

PART 6: PROTECTION OF SITE IMPROVEMENTS

1. SEE PROJECT SPECIFICATIONS. IT SHOULD BE NOTED THAT BURIED FIBER OPTIC LINES ARE LOCATED NEAR THE RIGHT SIDE OF THE TRAIL IN THE SOUTHERN PORTION OF THE PROJECT AREA AND NEAR THE LEFT SIDE OF THE TRAIL IN THE NORTHERN PORTION OF THE PROJECT AREA. MANY OTHER EXISTING UTILITIES AND SITE IMPROVEMENTS ARE LOCATED ALONG THE PROJECT ALIGNMENT.

PART 7: DESIGN CONDITIONS

1. THE DESIGN PRESENTED HEREIN IS BASED, IN PART, ON DIGITAL AUTOCAD TOPOGRAPHY AND GROUND SURFACE PROFILES THROUGH THE TRAIL ALIGNMENT PROVIDED BY THE PROJECT LANDSCAPE ARCHITECT (MACLEOD RECKORD). TERRACON HAS RELIED ON THE ACCURACY OF THE ABOVE INFORMATION IN ITS COMPUTATIONS AND DESIGN.

PART 7: DESIGN CONDITIONS (CONTINUED)

2. SHEETS G1.1 THROUGH G1.3 DO NOT SHOW EXISTING UTILITIES AND OTHER EXISTING SITE IMPROVEMENTS. SEE THE "C" SERIES AND "L" SERIES SHEETS FOR WALL LAYOUTS RELATIVE TO EXISTING UTILITIES AND OTHER EXISTING SITE IMPROVEMENTS.

3. IF SITE CONDITIONS OR DESIGN PARAMETERS ARE DIFFERENT THAN WHAT IS DESCRIBED IN THE PLANS AND SPECIFICATIONS, THE KING COUNTY PROJECT REPRESENTATIVE SHALL BE CONTACTED IMMEDIATELY TO EVALUATE THE NEED FOR DESIGN REVISIONS.

4. THE GABION WALL GEOMETRY AND MAXIMUM WALL HEIGHTS SHOWN ON SHEETS G1.1 THROUGH G1.3 SHALL NOT BE MODIFIED OR EXCEEDED WITHOUT REVIEW AND APPROVAL OF THE PROJECT REPRESENTATIVE.

REVISIONS:	DATE

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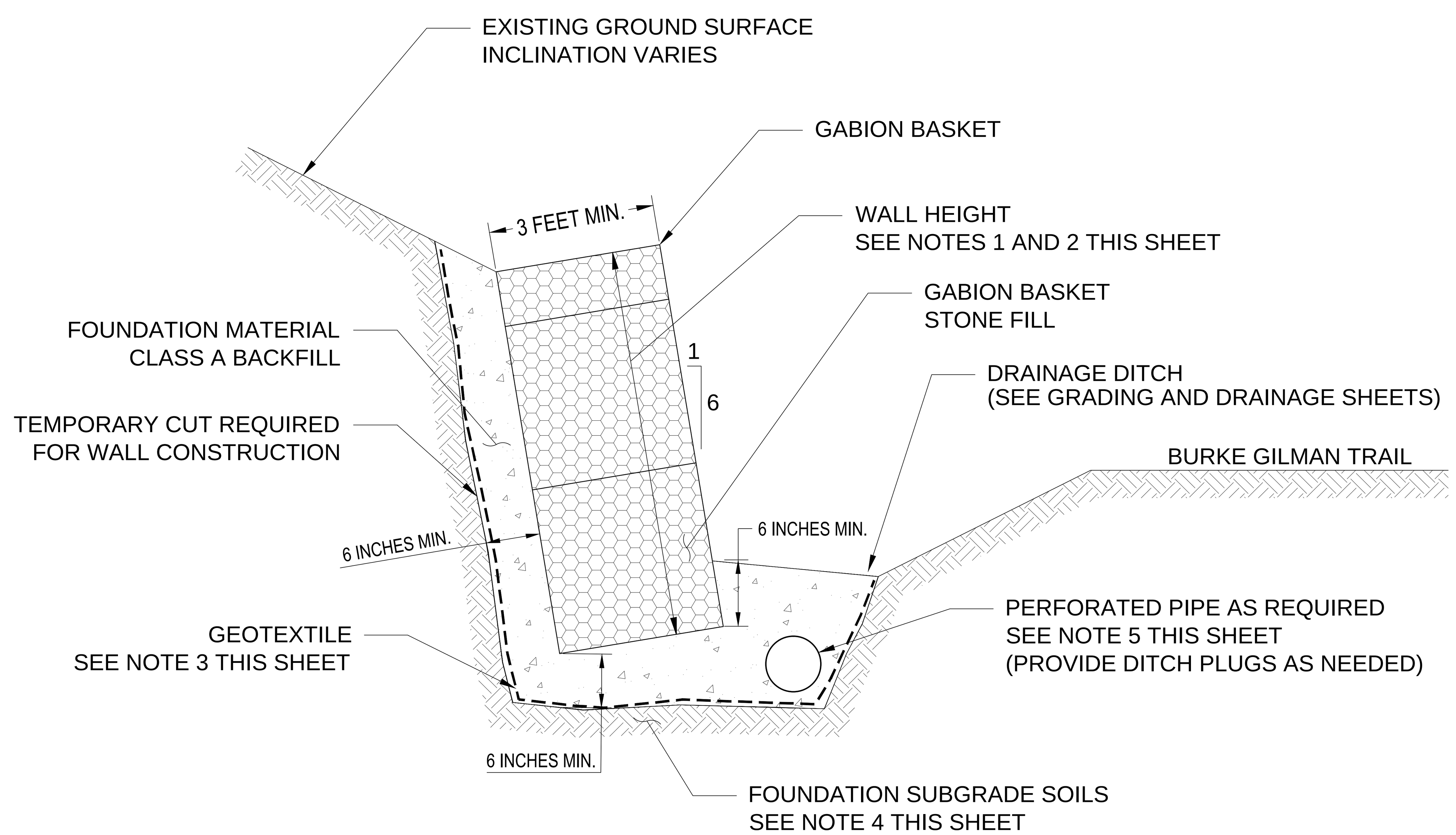
BURKE-GILMAN TRAIL REDEVELOPMENT

SCALE:	NTS
DATE:	07/22/10
DRAWN BY:	JPG
CHECKED BY:	JBT
JOB NO.:	81052367

GABION WALL GENERAL NOTES

SHEET G1.0

BID SET



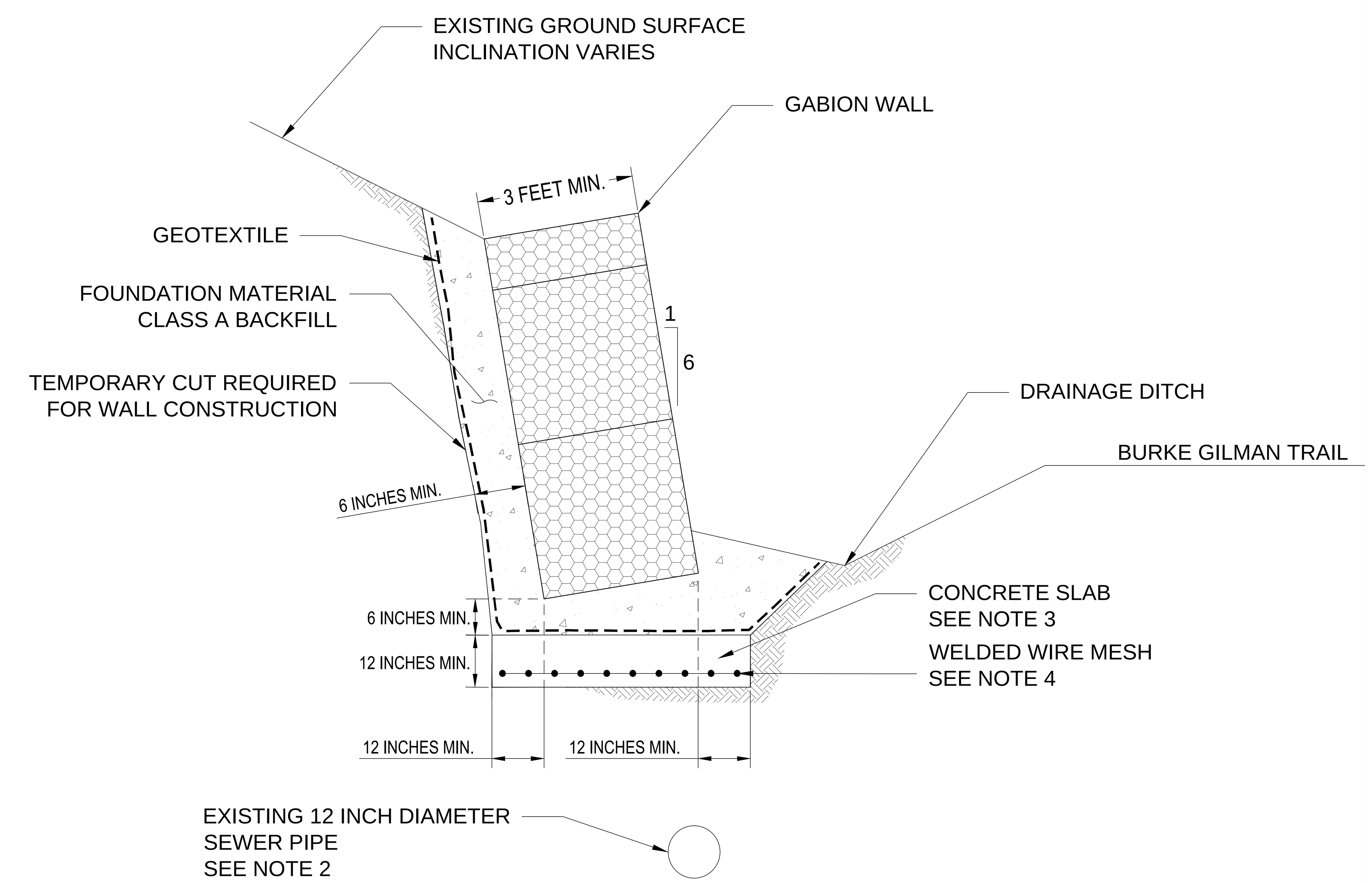
1 PROFILE VIEW - GENERALIZED DETAIL LEFT SIDE OF TRAIL : NOT TO SCALE

DETAIL 1 NOTES:

1. THIS GENERALIZED DETAIL IS APPLICABLE ONLY TO THE GABION WALLS ON THE LEFT SIDE OF THE TRAIL (LOOKING UP STATION) BETWEEN THE FOLLOWING STATION INTERVALS AND FOR THE INDICATED MAXIMUM WALL HEIGHTS. THIS DETAIL SHALL NOT BE USED AT OTHER LOCATIONS OR FOR WALL HEIGHTS GREATER THAN THE MAXIMUM INDICATED.

STATION INTERVAL	MAXIMUM WALL HEIGHT (FEET)
15+95 TO 16+50	6
24+70 TO 27+15	6
41+50 TO 42+70	6
88+00 TO 89+50	6
90+40 TO 90+60	6
91+50 TO 92+90	6
98+00 TO 99+85	7.5
103+00 TO 104+00	7.5

2. THE MAXIMUM WALL HEIGHT OF 7.5 FEET BETWEEN STATION 98+00 TO 99+85 AND STATION 103+00 AND 104+00 IS BASED ON THE ASSUMPTION THAT THE GABION WALL WILL RETAIN DENSE, UNDISTURBED GLACIAL TILL SOILS AT THESE LOCATIONS. THE CONTRACTOR SHALL CONFIRM THAT THIS IS THE CASE.
3. PLACE GEOTEXTILE BETWEEN EXISTING SOILS AND FOUNDATION MATERIAL CLASS A BACKFILL .
4. REMOVE AND REPLACE UNSUITABLE SUBGRADE SOILS AS DIRECTED BY THE KING COUNTY PROJECT REPRESENTATIVE.
5. SECTIONS THAT REQUIRE WALL DRAINS ARE NOTED ON SHEETS C1.1, C1.3, AND C1.9.



2 PROFILE VIEW - GENERALIZED DETAIL SEWER CROSSING : NOT TO SCALE

DETAIL 2 NOTES:

1. THIS GENERALIZED DETAIL IS APPLICABLE TO CONSTRUCTION OF A CONCRETE SLAB BELOW THE GABION RETAINING WALL LOCATED ON THE LEFT SIDE OF THE TRAIL (LOOKING UP STATION) FROM STATION 24+70 TO 25+00. REFER TO THE PROJECT SPECIFICATIONS AND PLAN SHEETS G1.0 THROUGH G1.3 FOR OTHER GABION WALL CONSIDERATIONS.
2. THE BASE OF THE GABION WALL WILL BE AT APPROXIMATELY ELEVATION 34 FEET (SEE SHEET L2.26). THE INVERT OF THE EXISTING 12-INCH DIAMETER CONCRETE SEWER PIPE IS AT ABOUT ELEVATION 29.0 (SEE INVERT ELEVATIONS SHOWN ON SHEET L1.2 FOR SSMH'S). THIS DETAIL IS BASED ON HAVING A MINIMUM VERTICAL SEPARATION OF 3.0 FEET BETWEEN BASE OF CONCRETE SLAB AND CROWN OF EXISTING SEWER PIPE. CONTRACTOR SHALL POTHOLE EXISTING SEWER PIPE TO DETERMINE PIPE CROWN ELEVATION AND CONFIRM THAT A MINIMUM VERTICAL SEPARATION OF 3.0 FEET IS ACHIEVED.
3. THE CONCRETE SLAB SHALL CONSIST OF CLASS 3000 CONCRETE.
4. 6 x 6 W1.4/1.4 WELDED WIRE MESH. INSTALL WELDED WIRE MESH 2 INCHES ABOVE BOTTOM OF CONCRETE SLAB. OVERLAP JOINTS A MINIMUM OF 12 INCHES.

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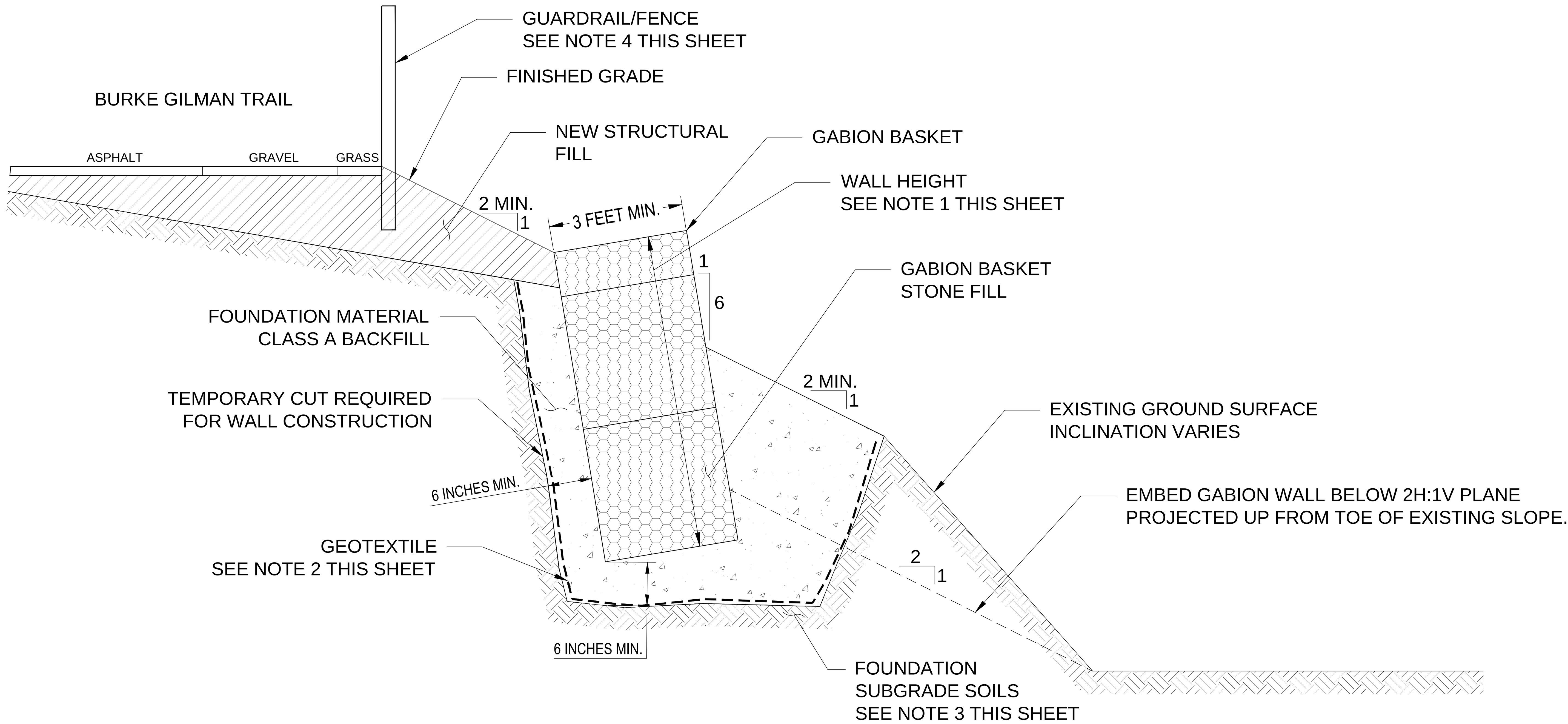
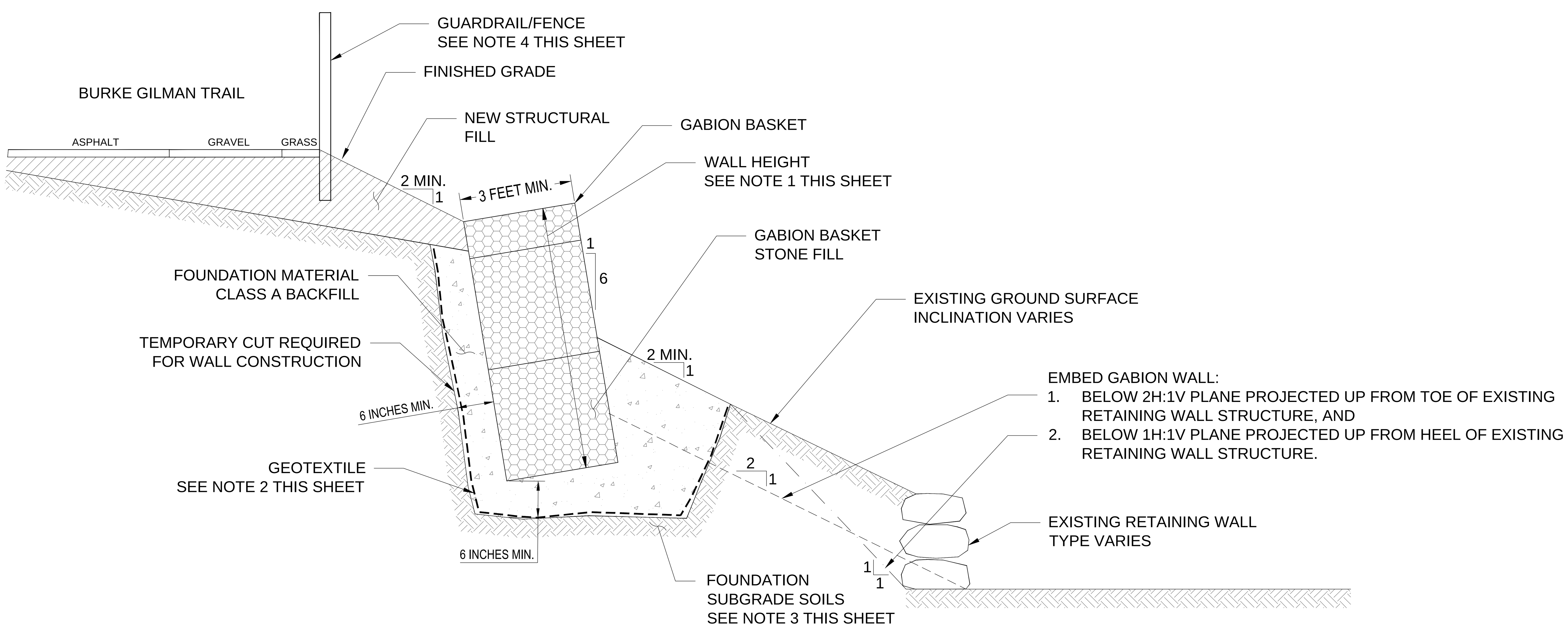
BURKE-GILMAN TRAIL REDEVELOPMENT

SCALE: NTS	GABION WALL GENERALIZED DETAILS LEFT SIDE OF TRAIL	SHEET	G1.1
DATE: 08/19/10			
DRAWN BY: JPG			
CHECKED BY: JBT			
JOB NO.: 81052367			

BID SET



1 PROFILE VIEW - GABION WALL ADJACENT TO EXISTING SLOPE : NOT TO SCALE



2 PROFILE VIEW - GABION WALL ADJACENT TO EXISTING RETAINING STRUCTURE : NOT TO SCALE

DETAIL NOTES:

1. THESE GENERALIZED DETAILS ARE APPLICABLE ONLY TO THE GABION WALLS ON THE RIGHT SIDE OF THE TRAIL (LOOKING UP STATION) BETWEEN THE FOLLOWING STATION INTERVALS AND FOR THE INDICATED MAXIMUM WALL HEIGHTS. THESE DETAILS SHALL NOT BE USED AT OTHER LOCATIONS OR FOR WALL HEIGHTS GREATER THAN THE MAXIMUM INDICATED.

STATION INTERVAL	MAXIMUM WALL HEIGHT (FEET)
0+00 TO 7+88	7.5
9+30 TO 10+25	7.5
22+00 TO 22+50	7.5
26+40 TO 26+80	7.5
32+00 TO 34+60	7.5
35+50 TO 38+50	7.5

2. PLACE GEOTEXTILE BETWEEN EXISTING SOILS AND FOUNDATION MATERIAL CLASS A BACKFILL.
3. REMOVE AND REPLACE UNSUITABLE SUBGRADE SOILS AS DIRECTED BY THE KING COUNTY PROJECT REPRESENTATIVE.
4. SEE LAYOUT AND GRADING PLAN FOR GUARDRAIL/FENCE TYPE, SIZE, AND LOCATION AS WELL AS OTHER RELATED DETAILS.

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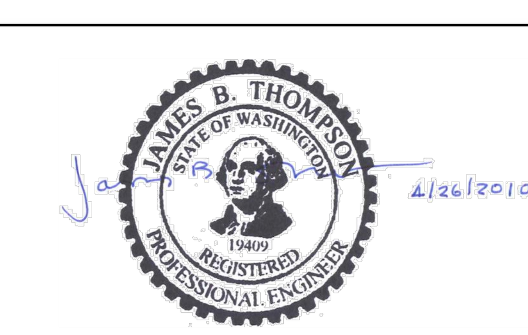

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BURKE-GILMAN TRAIL REDEVELOPMENT

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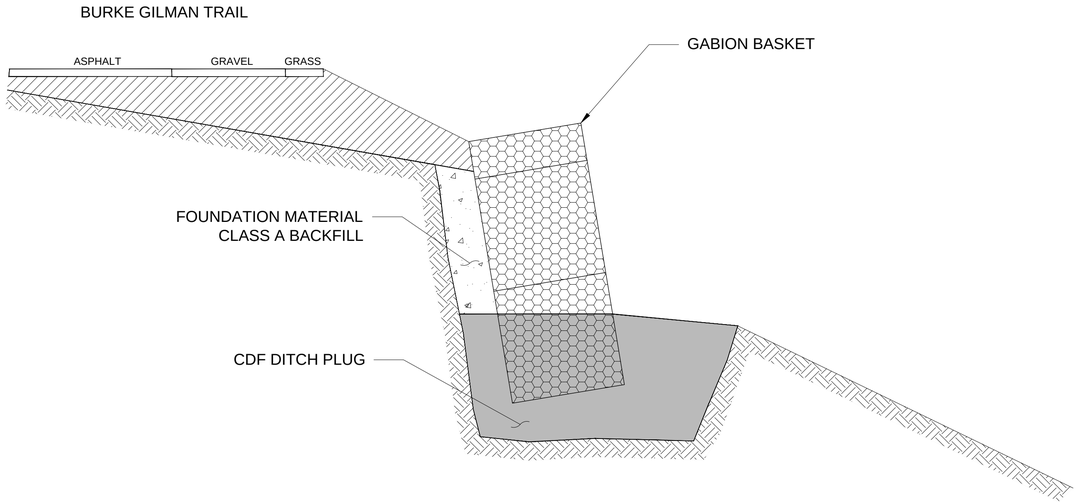
GABION WALL
GENERALIZED DETAILS
RIGHT SIDE OF TRAIL

SHEET G1.2

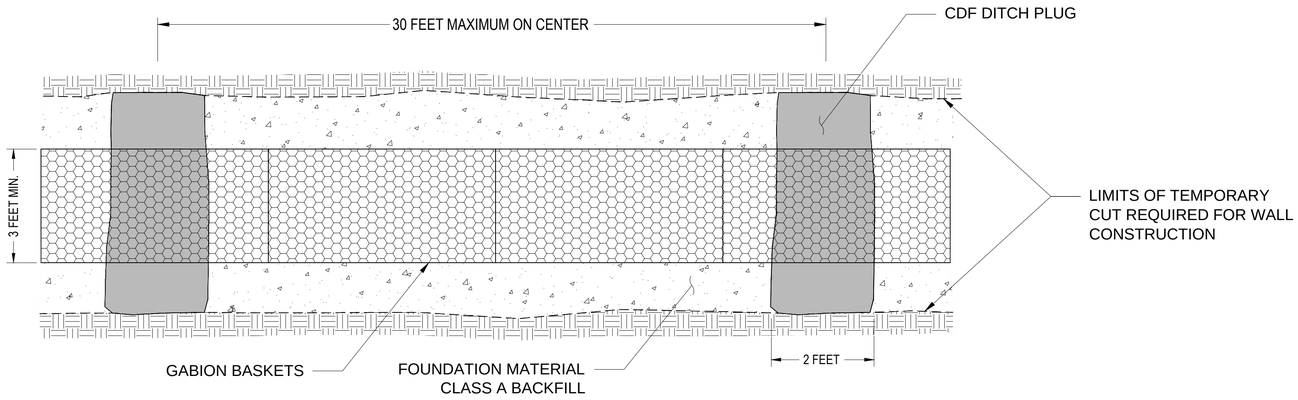
BID SET



1 PROFILE VIEW : NOT TO SCALE

DETAIL NOTES:

1. DITCH PLUGS SHALL BE INSTALLED FOR ALL GABION WALLS ON THE RIGHT SIDE OF THE TRAIL (LOOKING UP STATION).
2. INTENT OF DITCH PLUGS IS TO LIMIT THE POTENTIAL FOR LONGITUDINAL FLOW OF COLLECTED WATER IN THE LOWER PORTIONS OF THE GABION BASKET STONE FILL AND FOUNDATION MATERIAL CLASS A BACKFILL, THEREBY MINIMIZING IMPACTS TO THE NATURAL DRAINAGE PATTERN.
3. CDF DITCH PLUG SHALL BE POURED NEAT AGAINST BOTTOM AND SIDES OF THE GABION WALL EXCAVATION.



2 PLAN VIEW : NOT TO SCALE

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GABION WALL GENERALIZED DETAILS CDF DITCH PLUG

SHEET G1.3

BID SET